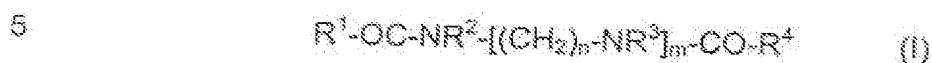


# CLAIMS

1. Use of ethoxylated derivatives of amidoamines corresponding to general formula (I):



in which  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  independently of one another represent a hydrogen atom, a branched or unbranched alkyl or alkenyl group containing 5 to 23 carbon atoms or a  $CO-CH=CH-COOH$  group and  $n$  is a number of 1 to 6 and  $m$  is a number of 1 to 8,  
10 as an emulsifier in drilling fluids which contain at least one continuous oil phase, an aqueous phase and typical additives.

2. Use claimed in claim 1, characterized in that the ethoxylated derivatives contain 1 to 10 parts ethylene oxide per part amidoamine of formula (I), preferably 1 to 7 parts and more particularly 1 to 5 parts.  
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3. Use claimed in claims 1 and 2, characterized in that ethoxylated derivatives of amidoamines of formula (I), in which  $R^1$  and  $R^4$  represent an alkyl and/or alkenyl group containing 5 to 23 carbon atoms and  $R^3$  is a  $CO-CH=CH-COOH$  group and/or a hydrogen atom, are used.

20 4. Use as claimed in claims 1 to 3, characterized in that amidoamine ethoxylates based on amidoamines of formula (I) are used, the compounds of formula (I) being produced by reaction of tall oil fatty acids with oligo- or polyethylene amines, preferably diethylene triamine, triethylene tetramine and/or tetraethylene pentamine.

25 5. Use as claimed in claims 1 to 4, characterized in that the ethoxylated derivatives are used in quantities of 0.1 to 25% by weight, preferably in quantities of 0.1 to 10% by weight and more particularly in quantities of 0.1 to 5% by weight, based on the weight of the drilling fluid.

30 6. Use claimed in claims 1 to 5, characterized in that the ethoxylated derivatives are used in drilling fluids of the water-in-oil type.

7. Use claimed in claims 1 to 6, characterized in that the drilling fluids contain weighting agents, fluid loss additives, wetting agents, an alkali reserve, thickeners and/or biocides as typical additives.
8. Use of ethoxylated amidoamines as claimed in claim 1, characterized in that the ethoxylated derivatives are produced by reaction of amidoamines corresponding to formula (I) with ethylene oxide at temperatures of 100 to 150°C and preferably at temperatures of 110 to 140°C in the presence of a catalyst selected from the group consisting of potassium hydroxide or sodium methylate.
9. Well servicing composition flowable and pumpable at 5 to 20°C which is based on a continuous oil phase in admixture with a limited quantity of a disperse aqueous phase (w/o invert type) and which contains optionally dissolved and/or dispersed standard auxiliaries, such as thickeners, fluid loss additives, wetting agents, fine-particle weighting agents, salts, alkali reserves and/or biocides, characterized in that the composition contains the ethoxylated derivatives of claim 1 as emulsifiers.
10. Well servicing composition as claimed in claim 9, characterized in that the oil phase is selected from the following classes:
- (a) carboxylic acid esters corresponding to formula (II):
- $$R'-COO-R'' \quad (II)$$
- where R' is a saturated or unsaturated, linear or branched C<sub>5-23</sub> alkyl group and R'' is a C<sub>1-22</sub> alkyl group which may be saturated or unsaturated, linear or branched,
- (b) linear or branched C<sub>8-30</sub> olefins,
- (c) water-insoluble, symmetrical or nonsymmetrical ethers of monohydric alcohols of natural or synthetic origin which may contain 1 to 24 carbon atoms,

- (d) water-insoluble alcohols corresponding to formula (III):



5 where  $R'''$  is a saturated, unsaturated, linear or branched  $C_{8-24}$  alkyl group,

- (e) carbonic acid diesters,
- (f) paraffins,
- (g) acetals.